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AREA INCIDENT PAGING NOTIFICATION SYSTEMS

by Alan Henney (henney@doubled.com)

Regardless of whether you consider them wannabe news people, crude forms of news media, or the best thing since sliced bread, the pager incident notification services have changed the way news rooms and news junkies hear about spot news.

New England Fire News Network was among the first, if not the first, of such notification services. It started in 1988 covering parts of the northeast and still does today. It was quickly followed by an explosion of similar paging services across the country.

The process is relatively simple: Most of the services have volunteer dispatchers, reporters, tipsters, whoever, often fire fighters, scanner buffs or people with other similar interests. They monitor scanners or keep their ears open while on the job, on the road or at the firehouse. Once news happens, someone along the news chain types an often terse news bulletin into a PC or paging terminal and sends it into the paging system. Moments later the message reaches customers' alphanumeric pagers. Topics of such messages typically range from fires and accidents to shootings and stabbings.

Those supplying the news on a regular basis are normally compensated with some degree of free service or other incentives. And everyone needs an extra ear to help break that next story. So if you've been bitten by the spot news bug, inquire about joining one of the services listed here.

The five paging services listed in this article cover parts of Delaware, Maryland, D.C. and Northern Virginia. All services listed exchange pages of significant incidents with other groups across the country, who in turn, pass the news along to their customers - sometimes way ahead of the commercial news sources - sometimes not. This typically ranges from second alarms to major news stories such as plane crashes and multiple shootings.

Most paging carriers offer other mainstream info services such as news, sports, weather and business. So make certain to inquire about those too when getting a new alpha pager.

Prices listed below are rounded to the nearest dollar and do not include tax and other charges. PageNet, for example, adds state sales tax, a 1.8 percent access tax and a carrier-imposed 8 percent surcharge "for network maintenance" to its accounts. Also ask how many pages are included with your personal service since most carriers have imposed a limit and start charging when you run over.

It's important to note that prices for paging service vary depending upon the salesperson, contract and payment plan negotiated. In many cases fire fighters, police officers and other professions qualify for discounts -- don't forget to ask!

Baltimore Metro Dispatch

Contact: 410-932-4876
Website: http://www.geocities.com/~bmd/index.html
Carrier/Dealer: PageNet (900 MHz), 410-902-8479
Price for pager: $140 (Advisor Gold)
Type of pager: Can use most any flex alpha pager
Service by itself: Not available
Service with personal numeric: Not available
Service with personal alpha: $12/month
Lease plans: $14-$15/month for Elite with maintenance plan.
Originates pages for Baltimore metro area.

BMD can be added for free to existing PageNet alpha pagers that are on the right frequency. PageNet can also include MFN for about $2 more per month.

Breaking News Network
Contact: 1-888-875-6100
Website: http://www.breakingnews.com
Carrier: Aquis Communications (900 MHz)
Dealer: Sold direct
Pager Price: $80
Type of pager: Advisor (primarily)
Service by itself: $8/month
Service with personal numeric: $10/month
Service with personal alpha: $14/month
Lease plans: Available for large accounts
Originates pages for DE, MD, DC and No VA.
Also has separate service covering NJ, east PA, south CT and much of NY.

Eastern Shore Fire Network
Contact: 1-888-744-8088
Website: N/A (e-mail: esfn@hotmail.com)
Carrier/Dealer: Salisbury Comm (152 MHz), 410-749-4005 x107
Price for pager: $56-$155
Type of pager: Varies
Service by itself: Not Available
Service with personal numeric: $8.50/month
Service with personal alpha: $10.50/month
Lease plans: Available; three-year lease includes loaner pager with rates above.
Originates pages for the Delmarva peninsula.

Firecom
Contact: 301-303-FIRE
Website: N/A
Carrier: Pagenet (900 MHz)
Dealer: Pennsel Comm, 1-888-806-4303
Price for pager: $50-$200
Type of pager: Various
Service by itself: Not available
Service with personal numeric: $13/month
Service with personal alpha: $17-$20/month
Lease plans: Not available
Originates pages for DE, MD, DC and No Va.

Prices include a mandatory $2/month insurance plan. FireCom still provides service on MobileComm as well, but new accounts are going through Pennsel Communications and PageNet.

Maryland Fire Net / Maryland News Net / American Fire Broadcast Net / Alert Page
Contact: 410-437-9636
Website: http://www.MDFIRENET.com/
Carrier: Pagenet (900 MHz)
Dealer: B.K. Communications, 410-363-9268
Price for pager: $90-$190
Type of pager: Various
News groups only: $5/month
Service with personal numeric: $12-$15/month
Service with personal alpha: $18-$20/month
Lease plans: Not available
Originates pages for DE, MD, DC and No Va.

BMD originally provided its service only over MobileComm's network. When BMD left for PageNet, Alert Page formed and assume BMD's remaining MobileComm customers. Alert Page is now under the MFN umbrella. As an interesting coincidence, PageNet says it can add MFN to PageNet pagers for about $2 more per month (see the PageNet contact info in the BMD section).

Shore Emergency Network Dispatch
Contact: 1-888-923-7363
Website: http://www.thecommunicationsgroup.net
Carrier/Dealer: Dover Radio Page (152 MHz), 302-855-2337
Price for pager: $100-$180
Type of pager: Various Motorola alpha pagers
Service by itself: Not available
Service with personal numeric: $7/month
Service with personal alpha: $10/month
Lease plans: $14/month with one-year contract.
Originates pages for Delmarva peninsula.

UPDATE ON P.G.'S COMMUNICATIONS CENTER

The director of the county's Public Safety Communications is reportedly considering a digital Motorola 800 MHz trunked system instead of enhancing the existing Ericsson/GE EDACS system.

At the moment, however, the primary objective is to move the Combined Communications Facility to the other side of the Landover complex on Anchor Street and complete the new CAD system. Insiders say the last CAD system was out of warranty when

the county started using it and was inadequate. The new CCF will have a separate room with a door where 9-1-1 call-takers will reside. The police and fire/EMS dispatch sections will now be on different sides of the same room.

A controversial plan under consideration would allow dispatchers to alternate between dispatching fire/EMS and police. The fire department has opposed this sort of crossover training. But the county has recently allowed dispatchers to more easily transfer between police and fire/EMS.

Despite a shortage of police dispatchers, they continue to dispatch sheriff deputies from the CCF. The sheriff dispatch position shifted to the CCF from the sheriff's Upper Marlboro office about a year ago - a change the sheriff reportedly contested. When the change occurred, the county had five sheriff dispatchers. Three left the department and a fourth is out because of an internal investigation. Only one sheriff dispatcher remains in the dispatch section and operates from the new position at the CCF. At other times a county police dispatcher runs the channel.

After most deputies have gone home, somewhere between 12:30 a.m. and 2:30 a.m., at the police supervisor's discretion, the county's sheriff channel (155.58) will be patched with police channels 5 (494.5375) and 10 (495.2125). The patch remains until around 6:30 a.m.

INTERESTING MONTGOMERY COUNTY ECC FACTS

The county's Emergency Communications Center (ECC) receives about 2,200 calls per day. About 77 percent (1,700 calls) are received between 10 a.m. and 8 p.m. Only 175 to 225 are for actual emergencies (Montgomery County is carefully watching Baltimore's 3-1-1 trial). About 500 calls are received during a peak hour, such as a thunderstorm. Of the 66,000 calls received per month, about three result in complaints filed against call-takers. The ECC makes copies of about 1,600 9-1-1 conversations each year, primarily for use in domestic violence court cases. Each call-taker spends an average of 53 seconds on a 9-1-1 call, and about 140 seconds on a 279-8000 call.

Call-takers/dispatchers split their shifts: Four hours answering 9-1-1/279-8000 and four hours on the radio. They get two 15-minute breaks and a half-hour meal break per shift. What many consider a high-stress civilian job is among the lowest paying in the county government with poor employee retention. Shift assignments are based on seniority; older, more experienced staff work during the day. Call-takers take about three months to develop their proficiency, while dispatchers take up to one year for radio proficiency. This is why they say they don't use light-duty police officers in ECC.

The ECC plans to move somewhere near Gaithersburg (probably next to the Gazette offices) to accommodate the new 800 MHz equipment. Contracting for the 800 MHz system should be "finalized" shortly (if not already). The proposed Gaithersburg police district is expected to form next spring with its own radio channel.

INSIDE MONTGOMERY COUNTY PD'S 9-WHISKEY UNIT

Montgomery County disbanded its centralized alcohol enforcement unit, known as the "Whiskey" unit over the police channels, in favor of a more decentralized approach.

The reconfigured unit is headed by a lieutenant who works out of headquarters and is responsible for overall program coordination. The focus of the unit continues to be underage drinking. Each police district has its own alcohol "coordinator" whose job it is to work with beat units to break-up parties, conduct roadblocks, etc. These units identify over the radio as "9 Whiskey x1," where x is the district

number. 9-Whiskey-51 is the District 5 (Germantown) coordinator. 9-Whiskey-80 is technically the coordinator of the coordinators, with countywide responsibility.

Theoretically the decentralized Whiskey units are supposed to stay in their own districts and work directly with the patrol units. Because many shift supervisors prefer not to have their beat officers tied up on drinking parties for extended periods of time, the coordinators often end up working together. When they work together, such as during a party surveillance, they generally use police channel 7 (495.3875) simplex to talk to each other.

Since underage drinking is a civil (versus criminal) violation, the best the police can do is ask the homeowner or host of the party for permission to come inside. If the answer is "no," all police can do is sit and wait for kids to leave and attempt to stop them for traffic or other violations.

At one Germantown party, the host refused permission and police could only warn him of his liability if someone left after drinking and was involved in an accident. If police receive permission to enter, they card everyone, all under-age persons are given a portable Breathalyzer test and their scores are often written on the backs of their hands. Those who are not "0.0" receive tickets and parental notification. Depending on the cooperation from the host, he/she might get a ticket for "furnishing."

In one case, because the homeowners called police when high schoolers crashed their daughter's graduation party, the police did not issue the homeowners a summons. At another home, the host said just two officers could enter the basement to card people. The other officers stood outside and watched people flock upstairs as police entered the outside basement door. Because of the limited permission needed to enter and the civil nature of the violation, police could not legally search the rest of the house, so the underage drinkers just stayed upstairs until police left.

RESCUE AT CARDEROCK

by Ralph Johnson (johnson@cpcug.org)

I used my amateur radio and scanner to assist in the rescue of a woman who was injured after she fell while rock climbing at Carderock, Md. Her only apparent injuries, fortunately, were possible broken ankles and some lacerations and contusions from scraping the rock.

My girlfriend and I were in the parking lot talking when another woman came up stating a climber had been injured in an accident. She tried to use her cellular phone to call the Park Police, but could not make the call because of the poor location. I tried to use my 2-meter radio with 30 watts to make an auto-patch call through the 146.955 MHz repeater, but experienced the same problem in that I couldn't get enough signal out to trip the auto-patch.

Instead, I made a general call for anybody to answer me and make a relay call. Another amateur answered and called the Park Police. There was initial confusion because the Park Police were already on another incident at Old Anglers Inn and thought we were repeating that call. After we got that straightened out, police and rescue personnel from Cabin John Volunteer Fire Department, the Park Service, Montgomery County EMS, and Navy fire department at the David Taylor Basin responded to the scene within a few minutes. The medical personnel quickly stabilized the patient and transported her to an ambulance for treatment.

This gave me an opportunity to check my frequency list for Montgomery County so I had handy my Radio Shack frequency counter as I stood by the rescue personnel. I managed to get one frequency, 154.83, the input to the river repeater, 153.95. I entered the frequency into my scanner and was able to follow what the medics were discussing about how to transport the injured woman. I missed confirming which frequency the Park Ranger used. The incident commander used the on-scene frequency, 153.95 (simplex), to talk with Montgomery County dispatchers.

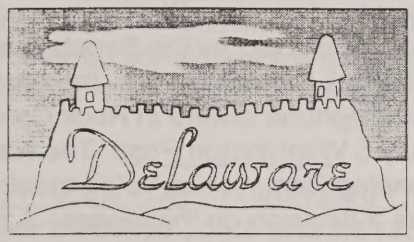
Although it was unfortunate somebody was injured in the accident, such incidents offer good opportunities to confirm and find new frequencies to monitor.

WICOMICO COUNTY PLANNING 800 MHZ TRUNKED SYSTEM

Several years ago Wicomico County planned to switch to a 453 MHz trunked system. That system never materialized and the current plan calls for the creation of a trunked system in the 856-861 MHz band. Frequencies appear below. According to Bill Zittle, the system may be operational as early as this fall.

Wicomico County 800 MHz Trunked System

856.7125 Conventional; license pending
856.9625 Conventional; license pending
856.9875 Conventional; license pending
857.9875 Trunked
858.2375 Trunked
858.9875 Trunked
859.2375 Trunked
860.2375 Trunked



DELAWARE TRUNKED SYSTEM UPDATE

Most every fire, police and radio-equipped state agency has at least one talkgroup on the system. In some cases, however, the old conventional channels continue to be used for primary communication mostly because of poor coverage along the coast (see the related NewsScan article in this issue).

Delaware is an APCO-compliant IMBE digital Motorola SmartZone system where each county is a separate SmartZone. Within the county, all talkgroups used in whole or part of the county are broadcast throughout the entire county -- not just a particular area within the county. Some talkgroups are statewide and, when keyed, simultaneously tie-up a frequency in each of the three zones. Other talkgroups simulcast over two of the three zones for improved coverage along county borders.

Although it is entirely a digital system, all is not lost. State police simulcasts of each county's "command and control" talkgroup continue, and promise to for the "foreseeable" future. DSP troops in Sussex County are on 154.755, Kent County is on 154.935 and New Castle County is 154.665. Computer checks are also simulcast on 155.475 in Sussex County.

Coastal police departments in Lewes (159.09), Rehoboth Beach (154.74/154.875), Dewey Beach (155.01) and Bethany Beach (151.22) continue to use their respective frequencies. Of the resort police departments, Fenwick Island, South Bethany, Dewey Beach and Lewes make the most use of the trunked system.

Rehoboth Beach fire continues to use 453.25 for its primary operations. Sussex County fire fighters expressed concern that they would lose their ability to hear what's going on since normally only line officers receive take-home trunked radios. So several departments have erected repeater systems that simulcast Sussex County's five fire and three EMS talkgroups. The Rehoboth Beach simulcast is on 453.65 (DCS 023) and the Indian River is on 453.225 (DCS 114). Indian River also uses its repeater with a DCS of 205 as a tac channel.

These repeaters provide a revealing insight as to what the digital audio sounds like and why critics are so disgruntled with it. Several upstate fire departments also converted their low band cross-band repeaters into trunked system simulcasts as well.

Sussex County supposedly plans to fund and provide its own simulcasts for the volunteers similar to the systems erected by Rehoboth Beach and Indian River. The county is also considering dropping 33.78 as the alerting frequency and moving it to 453 MHz. The county has licenses pending for more than 20 UHF channels. The goal, it appears, is for the county to license each fire station with an alerting and simulcast channel.

The frequencies listed on the pending licenses are 453.1, 453.125, 453.15, 453.225, 453.25, 453.35, 453.375, 453.425, 453.45, 453.475, 453.5, 453.55,

453.575, 453.6, 453.7, 453.775, 453.85, 453.875, 453.9, 453.95, 460.55 and 460.575. Several of these are transferring from the individual fire companies to the county while others are new allocations in this area.

Simulcasts of the old low band channels continue and can cause a great deal of confusion if you're not listening carefully! Rehoboth Beach's 453.3 (DCS 023) is one of the best, but it only cross-repeats 33.78. The most versatile remains the Blades simulcast on 154.4 (CSQ), which simulcasts a half dozen low band fire channels.

Every Delaware trunked radio is apparently programmed with the same conventional channels shown below. The "ITAC" and "911HELP" channels are the inter-agency channels, designated by the FCC for nationwide use. When used thus far, they are usually used for chitchat. The analog does not suffer from the tonal nasal sound users experience over the trunked system. Seaford utilities use the ITAC channels for routine dispatch. When Delaware fire apparatus respond to Ocean City, they switch to 866.0125 and are patched into Ocean City's EDACS system. Ocean City uses no CTCSS on 866.0125.

The only frequencies in the trunked radios that are available for simplex use are TALK1 and TALK2 -- both of which are C4FM (Compatible 4-Level Frequency Modulation for non-simulcast operation) digital modulation.

Delaware Statewide All-Agency Conventional Channels
866.5125r 156.7 "ITAC1"
867.0125r 156.7 "ITAC2"
867.5125r 156.7 "ITAC3"
868.0125r 156.7 "ITAC4"
866.0125r 156.7 "911HELP"
866.0125r 156.7 "911RPTR" (141.3 transmit)
867.2125s C4FM "TALK1"
868.1375s C4FM "TALK2"

NEWSSCAN

JOINT PUBLIC SAFETY INTEROPERABILITY CHANNEL PLAN. The Commerce Department has announced plans to designate 40 federal frequencies for use by federal, state and local law enforcement and incident response entities to improve their communications during emergencies and help them to better respond to threats to public safety. According to an NTIA press release, The plan is the first step toward ensuring that sufficient radio spectrum is available when and where an emergency or public safety need may arise.

The frequencies, under the control of the federal government, are to be used for intermittent law enforcement and incident response requirements during emergencies relating to public safety. For more information about the new interoperability plan contact William Speights at 202-482-1726 or check NTIA's Public Safety Home Page at http://pswac.ntia.doc.gov.

D.C. LOSES VOICE ON CELLPHONE ANTENNAS. District leaders are criticizing a provision in the D.C. budget passed by the Senate that orders the National Park Service to allow the erection of two cellular telephone towers in Rock Creek Park, says the July 5 Washington Post. The National Capital Planning Commission voted to table for the second time a decision on the towers. A majority of the commissioners on the regional advisory panel opposed the towers. Sen. Tom Daschle (D-S.D.), however, put an amendment into the $4.7 billion D.C. budget bill to give the Park Service 90 days to approve the project, initiated by Bell Atlantic Mobile.

The amendment says the Park Service "may consider, but shall not be bound by, any decision or recommendation" of the planning commission. The commission supposedly tabled the decision because it wanted to explore alternative technologies to the towers. Bell Atlantic Mobile says the towers passed an environmental-impact study and would be located on two sites - near a tennis center on 16th Street and in a park maintenance lot - that are not pristine natural areas. A new 100-foot pole would replace an existing 38-foot light pole at the tennis center, according to planning commission documents, and a 130-foot pole would be installed in the maintenance lot.

In his Senate speech, Daschle stressed the safety aspect of the debate and cited the 1996 Telecommunications Act, which requires that federal property be made available to services for wireless communication, if they are essential and environmentally sound. Mayor Anthony Williams, Council Chair Linda Cropp, and Delegate Eleanor Holmes Norton have each expressed reservations about the proposal.

MONTGOMERY COUNTY POLICE GET MDT FUNDS. The County Council has approved a $2.1 million emergency appropriation to continue funding the planning and design of a mobile data system. The system, reports the July 7 Gazette, will allow police officers and firefighters to obtain information such as criminal backgrounds, driving records and updated maps. Officers will be able to write and submit reports while they are on patrol instead of having to return to district police stations to complete the work. The system is being designed by county and contract staff. County police expect to purchase 200 mobile computers at a cost of more than $15 million, according to estimates from two years ago. The first 150 computers will end up in Germantown district police vehicles. The other 50 computers will go to special assignment teams, the repeat offenders and canine units.

SUBURBS PRESS FOR RELIABLE RADIO SYSTEMS. "Overburdened police and fire radio systems are often failing in many fast-growing area suburbs," warns the July 3 Washington Post, "but efforts to improve the situation have stalled because of bureaucratic disputes and other radio problems far from Washington." Interference among jurisdictions has been causing conflicts that have yet to be sorted out. Until then, the FCC says it cannot dole out the 866-869 MHz frequencies sought by some Washington suburbs for public safety radio systems.

Loudoun, Fauquier, St. Mary's and Charles counties, police and firefighters using outdated equipment sometimes cannot communicate in emergencies. Local officials and Virginia Senator Charles S. Robb have pressed the FCC to resolve the issues quickly. But FCC officials so far have declined to intervene in the four-year-long disputes. Emergency officials in Loudoun, the region's fastest-growing county, said their antiquated system is posing an increasing risk as the population and number of emergency calls skyrocket. They have been asking for new frequencies since 1997.

FCC officials say they cannot approve new requests for more reliable high-frequency [866-869 MHz] systems in the Washington area as long as the problems with Delaware, Maryland and Pennsylvania persist. Otherwise, they argue, newly issued frequencies could overlap and cause even more interference. The problem, says an FCC representative, lies with the regional committees who are supposed to review the use of public safety frequencies and prevent the kind of interference that is happening across the three state lines.

HYPING NDW'S EDACS VHF TRUNKED SYSTEM. "In order to provide a reliable communications network in its area of responsibility (AOR), which includes the National Capital Region, five counties of Northern Va., and Maryland, the Naval District Washington (NDW) selected Ericsson's VHF trunking technology," brags a company press release.

NDW is responsible for public safety operations at Navy facilities as well as other missions assigned to the Navy within its AOR. As the sub-regional planning agent for disaster preparedness within its assigned AOR, NDW's communications network must provide interoperable communications among Navy/Marine forces, other DOD organizations, federal agencies, and local authorities.

Ericsson said the existing MASTR III conventional equipment at the Washington Navy Yard could be upgraded to support digital trunked operations and could be expanded to support multisite operations with seamless interoperability to support communications throughout the AOR. Working with Ericsson and Superior Communications, Inc, the local Ericsson manufacturer representative from Rockville, NDW built out its current equipment to a multisite, interoperable VHF trunked radio system.

In May of last year NDW began communicating over a three-channel VHF trunked system at Bolling Air Force Base, its first site. This site supposedly provides in-building coverage for the Washington Navy Yard. It also purportedly provides portable coverage for the metropolitan Washington area. The NDW system was expanded in December with a five-channel EDACS

system at Bethesda Naval Hospital for better coverage to the greater Washington, DC, area, and a fourth channel was added to the Washington Navy Yard system.

The third NDW site is scheduled to be installed later this year at the Naval Academy. The addition of this site will allow for wide-area regional coverage throughout the district's AOR. The two existing sites serve 200 users. Each site is interconnected to an integrated multisite console and controller (IMC). This provides wide-area coverage, automatically switching between sites as users travel around NDW's AOR. Also interfaced to the IMC is a C3 Maestro CRT Dispatch Console, conventional mutual aid interface, logging recorder, Siemens 9-1-1 telephone system and Intergraph's computer aided dispatch (CAD) and automatic vehicle locator (AVL) systems.

Each base within the NDW system will eventually have a site with its own community of users who will operate independently. However, mutual aid channels tied to the local police and fire systems by a common network interface (CNI) will supposedly provide the interoperability that was not available in the old system. NDW's future plans include mobile data applications, such as mapping, global positioning satellite (GPS) technology, and further advancements in computer aided dispatching.

Although the press release suggests the system is digital, right now, at least, it's analog and only the Navy Yard portion is regularly active. Refer to the last CHM for the NDW frequencies. We could use some assistance finding the remaining frequencies, such as Bethesda and the Naval Academy when (if) they become active.

DELAWARE'S DIGITAL TRUNKED SYSTEM. Taxpayers in Delaware could be asked to provide another $7.5 million and support the construction of up to six more radio towers to bring the state's 800 MHz system up to par. The June 13 Delaware State News reported that the costs for the system so far have been more than $50 million and emergency workers complain the system is no closer to being corrected than it was earlier this year.

The dispute over whether Motorola delivered what it promised is under debate. The bottom line, the article states, is that emergency services personnel in some areas of the state have poor or non-existent radio communication. Those areas include Hartly, Marydel, Claymont, and along the Delaware coast, including Lewes and Rehoboth. In-building coverage also isn't as was expected in some areas. And the system is running about a 1 to 2 second delay similar to other digital trunked systems.

New Castle County emergency officials complained that the system does not work properly and is only slightly better than what was already in place. Some system shortfalls have been blamed on the placement of antenna towers. Other problems have been blamed on the waves in the Delaware River and Bay, or the absence of tall buildings along the beaches, which allows the signals to shoot out over the ocean and disappear!

The director of the state's telecommunications technology office stated that testing methods used to check the radio system are not adequate, maps used to locate towers have not been kept current and the system does not meet the specifications set forth in memorandums of understanding about its capabilities.

PHILLY'S PROPOSED DIGITAL TRUNKED SYSTEM. An article in the June 24 Philadelphia Citypaper examined Philadelphia's proposed $51 million 30-channel digital trunked system and problems experienced by other jurisdictions with similar systems. The fear expressed in the article is that city officials will control the information the public and media may monitor, and there's some uncertainty that the system will work as promised.

There is "no general right of the news media or others to monitor police and fire radio communications," wrote the city solicitor in a June 2 memo. The city, the memo continues, is "free to implement a radio communications network that encrypts and otherwise prevents or restricts" news media and other citizens from monitoring the airwaves. "...because radio transmissions under the 800 MHz system will not be readily accessible to the public, the City has no legal obligation to make these transmissions available... It appears that the City is free to implement a radio communications system that encrypts and otherwise prevents or restricts news media, citizens, and others from monitoring police and fire department communications."

The city council passed legislation May 26 giving Motorola the go ahead to develop an 800 MHz digital radio system for city agencies. When Phase I is completed in 18 months, the fire department, the department of public property, fleet management, the airport and the water department, among others, will all be online. Police communications will be phased in over the following year and a half. Officials also hope to lease some system capacity not used by the city.

One city official speculated that the media will have an opportunity to buy equipment. But the city will control which channels they get. Cleveland, for instance, sells Motorola monitors for $4,000 to $6,000 each. An annual licensing fee of $50 per radio is stacked on top of that. Costs incurred by Fox affiliate WWJW are typical, the article stated. That station purchased two radios for monitoring police frequencies, plus an additional radio for fire and EMS channels. WWJW paid a one-time programming fee of $100 for each of the three radios, as well.

"Considering the system's inconsistent performance in other cities, it seems fair to raise questions about this major investment," the writer observed. Recent events in Cleveland stand out. Police there have used a $43 million Motorola 800 MHz system for two years. Since the digital radio network went on-line, officers experience more dead spots than they did on the old system, according to the union representing patrol officers and radio dispatchers. It is not uncommon for the voices of Cleveland cops and dispatchers to fade out on one another, contends the president of that city's Police Patrolmen's Association. The radio network even experienced a total shutdown on May 25.

"While the media has been content to regurgitate Motorola's own fluffy public relations lines," the reporter writes, "horror stories about these 800 MHz digital radio systems are surfacing at police and fire departments all over the country." A few years ago, the police department in Dade County, FL, purchased a $43 million 800 MHz digital radio system. Soon after it went on line, officers complained that the audio quality sounded like there were "toilets flushing in the background." More frightening, however, were charges that the time required to convert voices to digital signals delayed calls by one-and-a-half seconds. In Kansas City, emergency workers reported problems using a Motorola-designed 800 MHz trunked radio system soon after it went on line in 1998. "Rarely a month passed when the city and Motorola did not duke it out over some incident 'confirming' that the system was a bust."

"If we don't have access to police communications, we are flirting with the end of local news photography in America," warned a Philadelphia Daily News photographer. "I might sound paranoid," he said, "but this is the city that dropped the bomb on MOVE."

HACKER PIPES CELLULAR OVER INTERNET. The June 25 Wired Digital Inc. featured an interview with a hacker known only as DwC who captures analog phone conversations with a Bearcat BC200XLT scanner, and netcasts them onto an Internet relay chat channel with Shoutcast, a streaming MP3 service. Normally such calls can only be heard by someone using a modified scanner, the article observes, but DwC has taken the conversations to a wider audience all over the world.

The director of the Electronic Frontier Canada said that while Canada's Section 183 states that calls made on analog cell phones, or via "radio-based telephone communication" are not considered a "private communication," DwC may still be violating the law under Section 184 by using the intercepted conversations maliciously. AOL deleted the cellphone Shoutcast channel. What should phone users do to protect themselves? "Strong crypto keeps out the cops, it keeps out the reporters, and it keeps out this punk in Vancouver who is getting his jollies," the article concludes.

GSM CELLULAR PHONES INCREASINGLY INSECURE. Over the past six months a roaring trade has sprung up on back-street markets for equipment to intercept cellular telephone calls that had once been reserved for government intelligence and law enforcement agencies, states the June 10 Intelligence Newsletter. The risk that GSM networks are being broken into for espionage purposes with widely-available equipment and modest skills is now very real, the article warns.

Intelligence Newsletter states it has been able to identify web sites that sell interception equip-

ment by mail. Elsewhere, components required to manufacture such devices are to be found in many electronics stores in Europe and the United States. The industry itself has pointed the way, the article observes. One firm describes a system, reserved for governments, as one of the best "official" devices to record GSM communications at a cost of between $245,000 and $327,000 depending on the model. Systems sold on the black market run along the same lines as such products, and sometimes simply copy them.

The system consists of a portable computer equipped with deciphering software connected to a GSM or fixed 2Mbits/second telephone. Tracking the target line with a clone of its SIM (Subscriber Identification Module), the system can usually decipher the signal in just 2.5 minutes. The breakthrough came in April 1998 when two researchers from the University of Berkley in California demonstrated that it was possible to clone a SIM card. The fact that encryption used in GSM is relatively easy to crack has contributed to the upsurge in cloning the article concludes.

MORSE CODE, ON ITS WAY OUT? "Morse Code is a dying language in the Digital Age," contends the lead of a recent Wall Street Journal article. "but it's still required reading for amateur radio buffs. The debate over whether it should stay that way, however, has provoked some intemperate words, warnings of an impending invasion of riffraff and counter-accusations of elitism among the nation's half-million two-way-radio hobbyists, who call themselves 'hams.'"

As part of a proposed streamlining of its licensing procedures, the FCC is considering relaxing the Morse Code requirement. The two sides in the debate - the no-coders and the coders - have flooded the FCC with more than 2,200 comments. The controversy has spawned dueling Web sites, speakers bureaus, newsletters and Washington lobbying drives. With the rise of computers and the Internet, the ranks of hams have all but stopped growing. And many of the same technologies have nearly killed off Morse Code, which has been replaced for practical communications by digital methods. The issue won't be decided until the end of summer.

Eric Carlson, Ray Chin, Jim Conrad, John Korman, Jack McCartan and Mike Peyton contributed to this issue's NewsScan. Please keep this column in mind if you find articles of interest.

Please address all correspondence to Alan. We encourage readers to submit material and write articles that relate to the hobby. All submissions are subject to editing for style and content. When submitting material please make certain we can contact you should we have any questions. We welcome frequency and visitor requests, but please include a reply envelope.

Contact: Alan Henney
6912 Prince George's Avenue
Takoma Park, MD 20912-5414
301-270-2531 (voice) / 301-270-5774 (fax)

Newsletter Staff:
Dr. Willard Hardman, Executive Editor
(hardman1@ix.netcom.com)
Mike Peyton, Technical Advisor
(Michael.Peyton@mci.com)
Ken Fowler, Northern Virginia Correspondent
(kfowler1@osf1.gmu.edu)
Alan Henney, Editor & Treasurer
(henney@doubled.com)

The Capitol Hill Monitor is the non-profit newsletter of the *Capitol Hill Monitors.* The newsletter keeps scanner enthusiasts abreast of local meetings, frequency profiles and other topics of interest. Dues are $10 and include 12 issues (back issues cost $1 each). Kindly make checks payable to Alan Henney. Membership will be prorated accordingly in the event of a postage increase.

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We encourage computer users to take part in discussions on Frank Carson's Open Channel computer BBS (301-203-8478) or subscribe to the Scan-DC listserv by sending an e-mail to majordomo@qth.net with the words "subscribe scan-dc" (no quotes) as the message.

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6912 Prince Georges Avenue
Takoma Park, MD 20912

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